Response to Arguments

1.   Applicant's arguments filed November 24, 2009 have been fully considered but

they are not persuasive.

        Applicant stated in the Remarks, that the combined system of Kuwata et al '194,

Yamamoto et al '553, Qian '092, and Hyodo et al '400 does not disclose:

"(i) a first RGB color space corresponding to the first color space conversion condition is
different from a second RGB color space corresponding to the second color space
conversion condition, the second RGB color space having a color gamut wider than that
of the first RGB color space,

(ii) in a case where it is determined that the photographing mode is the person
photographing mode, the first color space conversion condition is selected, and

(iii) the number of bits of the image data converted by using the first color space
conversion condition is the same as the number of bits of the image data converted by
using the second color space conversion condition

(iv) both the image data converted by using the first color space conversion condition
and the image data converted by using the second space conversion condition have
three-component data of R-component data, G-component data and B-component data
".

However Examiner disagrees because the system of Kuwata et al '194 discloses:

(i) a first RGB color space corresponding to the first color space conversion condition is

different from a second RGB color space corresponding to the second color space

conversion condition, the second RGB color space having a color gamut wider than that

of the first RGB color space (page 4, paragraph 55, page 5, paragraph 67; sRGB is

different from NTSC color space; NTSC color space (second color space) is wider than

sRGB (first color space); page 4, paragraph 55); Further Kuwata et al '194 discloses

that the number of bits of the image data converted by using the first color space
(sRGB) conversion condition is 8 bits (page 4, paragraph 55, lines 8-9) but does not
specify how many bits are used in the NTSC color space. The system of Yamamoto et
al '553 was used to show that NTSC color space (second color space conversion
condition) can also have 8 bits (Yamamoto et al '553: column 19, lines 8-14).

Further Kuwata et al '194 discloses both the image data converted by using the first
color space conversion condition and the image data converted by using the second
space conversion condition have three-component data of R-component data, G-
component data and B-component data (page 4, paragraph 55; sRGB (first color space
conversion data) and NTSC (second color space conversion data) are based on RGB
space so they both have R, G, B components.).

Thus the system of Kuwata et al '194 and Yamamoto et al '553 disclose (i) and (iii) and
(iv) above.

 However the system of Kuwata et al '194 did not disclose that the first color space
conversion of a narrower gamut was used for photographing mode corresponding to a
person mode.

 The system of Qian '092 discloses that in the analysis/processing of facial images a
conversion to a r-g color space is used (column 3, lines 46-67; column 4, lines 1-7). The
r-g color space is a narrower gamut compared to the full RGB space since brightness
information does not exist and therefore two RGB values with different intensities have
the same RGB information in the r-g color space. However the r-g color space still has
the R, G, and B components since the r, g value are function of the B component. Thus

the conversion to the narrow r-g color space has all three components of the R, G, B.

The teaching of Qian '092 of using a narrow RGB color space conversion (r-g color

space) for facial image analysis can be used with the system of Kuwata et al '194 to

provide a first color space conversion of using a narrow color space for photographing

of an image of a person.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 11, 12, 18, 19, and 20 are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Patent Application Publication No. US 2002/0122194 A1 to

Kuwata et al in view of U.S. Patent No. 6198553 to Yamamoto et al further in view of

U.S. Patent No. 6148092 to Qian further in view of U.S. Patent No. 7274400 to Hyodo

et al.

       Regarding claim 11, Kuwata et al '194 discloses an image processing method

comprising the steps of:

obtaining image data and photographing mode information of the image data (page 1,

paragraph 39, 40, 41, 42; image file and attribute information including color space

information reads on photographing mode information);

selecting a color space conversion condition from among plural color space conversion

conditions, including first and second color space conversion conditions, in accordance

with the determination result obtained in said determining step (page 4, paragraph 55,

page 5, paragraph 67; sRGB (first color space) or NTSC color space (second color

space) condition; page 3, paragraph 39, 40, 41, 42; "color space parameter" determines

the color space used.); and

performing, to the obtained image data, color space conversion of converting

luminance/color difference data into RGB data, using the selected color space

conversion condition (page 4, paragraph 55; page 5, paragraph 67; YCbCr defines the

luminance/color difference data; conversion to either NTSC (which is RGB based color

space (see page 4, paragraph 55)), sRGB, or extended sRGB);

wherein a first RGB color space corresponding to the first color space conversion

condition is different from a second RGB color space corresponding to the second color

space conversion condition, the second RGB color space having a color gamut wider

than that of the first RGB color space (page 4, paragraph 55, page 5, paragraph 67;

sRGB is different from NTSC color space; NTSC color space (second color space) is

wider than sRGB (first color space); page 4, paragraph 55. Kuwata et al '194 discloses

that the number of bits of the image data converted by using the first color space

(sRGB) conversion condition is 8 bits (page 4, paragraph 55, lines 8-9), and

wherein both the image data converted by using the first color space conversion

condition and the image data converted by using the second space conversion

condition have three-component data of R-component data, G-component data and

B-component data (page 4, paragraph 55; sRGB (first color space conversion data) and

NTSC (second color space conversion data) are based on RGB space so they both

have R, G, B components.).

However Kuwata et al '194 does not disclose wherein the number of bits of the image

data converted by using the second color space conversion condition (NTSC color

space conversion) is also 8 bits (i.e. same number of bits as the image data converted

using the first color space conversion condition).

Yamamoto et al '553 discloses wherein the number of bits of the image data

converted by using the second color space conversion condition (NTSC color space

conversion) is 8 bits (column 19, lines 8-14; The converted NTSC image data is 8-bits).

Having the system of *Kuwata et al '194* and then given the well-established

teaching of *Yamamoto et al '553*, it would have been obvious to one of ordinary skill in

the art at the time of the invention was made to modify the system of *Kuwata et al '194*

as taught by *Yamamoto et al '553*, since *Yamamoto et al '553* stated in col. 19, Lines

8-17 (Figure 23, reference 20222), such a modification would provide 8-bit NTSC image

data as needed by reference 20222 for further image processing for an RGB system.

However Kuwata et al '194 does not disclose wherein, in a case where it is

determined that the photographing mode is the person photographing mode, the first

color space conversion condition is selected.

Qian '092 discloses wherein, in a case where it is determined that the

photographing mode is the person photographing mode, the first color space conversion

condition is selected (column 3, lines 33-37; camera device 8; column 3, lines 38-67;

column 4, lines 1-14, 41-60; for image of face (person mode), input image which can include luminance/chromaticity data is converted to chromatic color space of r, g; Since the r, g is a subset of the RGB space it is going to have smaller gamut than conversion to a full RGB; <u>the r-g color space is defined in terms of the three components R, G, B since the r and g are function of the three components R,G, B so therefore the r-g color space has all three components RGB.</u>).

Having the system of **Kuwata et al '194** and then given the well-established teaching of **Qian '092**, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system of **Kuwata et al '194** as taught by **Qian '092**, since **Qian '092** stated in col. 3, lines 57-67; col. 4, lines 15-25, such a modification would provide color conversion/transformation for detection of facial areas of an image.

However Kuwata et al '194 does not disclose determining whether or not a photographing mode is a person photographing mode, based on the photographing mode information; wherein the photographing mode is a mode which corresponds to photographing an object by a digital camera to generate the image data, and which includes the person photographing mode and a scene photographing mode.

Hyodo et al '400 discloses determining whether or not a photographing mode is a person photographing mode, based on the photographing mode information (column 9, lines 57-67; value of mode dial determines the person mode); wherein the photographing mode is a mode which corresponds to photographing an object by a digital camera to generate the image data, and which includes the person

photographing mode and a scene photographing mode (column 4, liens 25-29, 45-65;

RGB image; column 9, lines 57-67; day/night scene mode).

Having the system of *Kuwata et al '194* and then given the well-established

teaching of *Hyodo et al '400*, it would have been obvious to one of ordinary skill in the

art at the time of the invention was made to modify the system of *Kuwata et al '194* as

taught by *Hyodo et al '400*, since *Hyodo et al '400* stated in col. 1, lines 35-41, col. 2,

Lines 12-27, such a modification would provide appropriate frames based on

photograph mode.

Regarding claim 12, Kuwata et al '194 in view of Yamamoto et al '553 further in

view of Qian '092 further in view of Hyodo et al '400 teaches all the limitations of claim

11. Further Kuwata et al '194 discloses an image processing method according to Claim

11, wherein a first RGB color space is an sRGB color space (page 5, paragraph 67;

sRGB (first color space)).

Regarding claim 18, Kuwata et al '194 in view of Yamamoto et al '553 further in

view of Qian '092 further in view of Hyodo et al '400 teaches all the limitations of claim

11. Further Kuwata et al '194 discloses an image processing method according to Claim

11, further comprising the step of performing an image correction on the image data that

has been subjected to a color space conversion (page 5, paragraph 68; "gamma

correction").

Regarding claim 19, see the rejection of claim 11 as shown above. The method of Kuwata et al '194 in view of Yamamoto et al '553 further in view of Qian '092 further in view of Hyodo et al '400 renders obvious the apparatus of claim 19.

Regarding claim 20, see the rejection of claim 11 as shown above. The method of Kuwata et al '194 in view of Yamamoto et al '553 further in view of Qian '092 further in view of Hyodo et al '400 renders obvious the programming steps of claim 20.

3.   Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. US 2002/0122194 A1 to Kuwata et al in view of U.S. Patent No. 6198553 to Yamamoto et al further in view of U.S. Patent No. 6148092 to Qian further in view of U.S. Patent No. 7274400 to Hyodo et al further in view of U.S. Patent No. 6975437 to Takemoto.

Regarding claim 15, Kuwata et al '194 in view of Yamamoto et al '553 further in view of Qian '092 further in view of Hyodo et al '400 teaches all the limitations of claim 11. However Kuwata et al '194 in view of Yamamoto et al '553 further in view of Qian '092 further in view of Hyodo et al '400 does not disclose wherein the photographing mode information includes flash information.

Takemoto '437 discloses wherein the photographing mode information includes flash information (column 5, lines 50-57).

Having the system of **Kuwata et al '194 in view of Yamamoto et al '553 further in view of Qian '092 further in view of Hyodo et al '400** and then given the well-established teaching of **Takemoto '437**, it would have been obvious to one of

ordinary skill in the art at the time of the invention was made to modify the system of

Kuwata et al '194 in view of Yamamoto et al '553 further in view of Qian '092

further in view of Hyodo et al '400 as taught by ***Takemoto '437,*** since ***Takemoto '437***

stated in column 6, lines 3-12, such a modification would provide the flash information

needed to specify the right tone curve for the image processing.

Conclusion

4.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

   A shortened statutory period for reply to this final action is set to expire THREE

   MONTHS from the mailing date of this action. In the event a first reply is filed within

   TWO MONTHS of the mailing date of this final action and the advisory action is not

   mailed until after the end of the THREE-MONTH shortened statutory period, then the

   shortened statutory period will expire on the date the advisory action is mailed, and

   any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing

   date of the advisory action. In no event, however, will the statutory period for reply

   expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENIYAM MENBERU whose telephone number is (571) 272-7465. The examiner can normally be reached on 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is (571) 272-2600. The group receptionist number for TC 2600 is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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